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| 10/628,577      | 07/29/2003  | Augusto Rodriguez    | 005242.00059        | 4091             |

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BANNER & WITCOFF  
1001 G STREET N W  
SUITE 1100  
WASHINGTON, DC 20001

EXAMINER

CORDRAY, DENNIS R

ART UNIT PAPER NUMBER

1731

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/628,577

Applicant(s)

RODRIGUEZ ET AL.

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/12/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 6-12, 15, 16 and 20-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 14, 17-19, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/9/04, 12/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This is a first action on the merits of Application SN 10/628,577.

#### ***Election/Restrictions***

1. Applicant's election without traverse of the following inventions and species in the reply filed on July 12, 2005 by the applicant's attorney Joseph M. Skerpon is acknowledged.

For the invention, applicants elected the invention of Group II – claims 13-24.

For the required species election, the applicants selected

- a) Embodiment A -a composition of a film-forming binder, an anionic polymer and a cationic polymer;
- b) as an anionic polymer a styrene-maleic anhydride (SMA) copolymer;
- c) as a cationic polymer a polyamidoamine-epichlorohydrin and
- d) as the film-forming binder starch.

Of the claims in Group II, claims 13, 14, 17, 19, 21, 23, and 24 were believed to embrace the relevant method(s) applied to these species.

Claims 1-4 and 6-12 were withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claim 5 was canceled. Election was made **without** traverse in the reply filed on July 12, 2005.

A new claim 25 was added dependent on claim 13 to embrace the elected species. Entry of this new claim was requested.

#### ***Comments***

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2. The elected species of the anionic polymer "styrene-maleic anhydride (SMA) copolymer" does not appear in the claims. It is assumed for the purposes of this examination that the applicants intended to elect "a hydrolyzed copolymer of styrene-maleic anhydride," which does appear in the claims.

Claims 15, 16 and 20-22 are drawn to nonelected species and will not be further considered on the merits. Claim 23 is dependent on a claim to nonelected species and will not be further considered on the merits. Although claims 17 and 19 were not amended to omit the nonelected species, the claims will be examined with respect to the elected species only. Claim 24 depends on claims to both elected and to nonelected species. Claim 24 will be examined with respect to the elected species only and its dependency on claims to in claims 13, 14 and 17-19. Claim 25 will be examined as written. Thus, the claims drawn to the elected invention (Group II) that will be examined pursuant to the preceding limitations are claims 13, 14, 17-19, 24 and 25.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17, 19 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 17 and 19 contain elected as well as nonelected species and are indistinct with respect to the elected invention. Claim 24

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depends on claims to both elected and to nonelected species and is indistinct with respect to the elected species.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 14, 18, 19 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Burdick (6359040).

Burdick discloses the application of an aqueous composition to the surface of a cellulosic web (col 14, lines 41-47). The solution comprises:

- a binder, which can be a starch (col 14, lines 1-6),
- an anionic polymer, which can be a styrene-maleic anhydride copolymer (col 5, lines 44-46 and 51-55) and
- a cationic polymer in aqueous solution, which can be a polyaminoamide-epichlorohydrin polymer (col 4, lines 63-66 and col 5, lines 1-8).

Burdick also discloses a sized cellulosic sheet treated with starch, anionic and cationic polymers (col 33, Example 9).

***Claim Rejections - 35 USC § 103***

5. Claims 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burdick in view of Gray et al (3297657).

Burdick does not disclose the use of a hydrolyzed styrene-maleic anhydride copolymer.

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Gray et al teaches that hydrolyzing styrene-maleic anhydride copolymers for use as sizing agents is well known and applied on a commercial scale (col 1, 13-17). The art of Burdick, Gray et al and the instant invention are analogous because they pertain to sizing solutions. It would have been obvious to a person of ordinary skill in the art to use a hydrolyzed styrene-maleic anhydride in the process or Burdick in view of Gray et al as a well known and commercially available sizing agent.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure [Frolich et al (20020166648), Kehrer et al (20030075292), Kehrer et al (20030116294)].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DRC



DIONNE A. WALLS  
PRIMARY EXAMINER